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ABSTRACT

Four products were developed during the second year of the Extended Opportunity Programs and Services (EOPS) cost effectiveness study for California community colleges. This project report presents: (1) a revised cost analysis form for state-level reporting of institutional program effectiveness data and per-student costs by EOPS program category (recruitment, counseling, financial aid, etc.); (2) a formula for determining cost effectiveness of individual college EOPS programs in which effectiveness ratios for first-time and continuing EOPS students are calculated from student retention, ability, unit completion, and goal (degree) completion data; (3) a proposed State Allocation Formula for EOPS funds, which combines the resulting cost effectiveness ratios of individual college EOPS programs with a need factor, determined by the discrepancy between the potential pool of EOPS students in the college's service area and actual number of EOPS students served, the college's requested EOPS service level, and area cost of living; and (4) an additional revised institutional data reporting form. Recommendations are made for the implementation of the cost effectiveness formula and its incorporation into EOPS master planning and program development. Appended to the project report are EOPS program and per-student costs by category for the 11 colleges involved in the study and a hypothetical calculation for EOPS program allocations. (BB)

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EOPS - Special Project

#74 - 101

Development of Procedures to Implement EOPS Cost Effectiveness Standards Model and Continued Evaluation of These Procedures by Selected Community Colleges during the 1974-75 Academic Year

June, 1975

Presented to:

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1974-75

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October 12, 1974

Preface

In the early spring of 1973, the EOPS staff of the Community College Chancellor's Office asked the members of the Northern California Community College Research Group to develop and field test a "Cost Effectiveness Study" related to the EOPS programs funded through Senate Bill No. 164, 1969 - (EOPS - Special Project No. 73-102). At the same time they allocated funds for the "Development of EOPS Data Collecting and Transmittal Forms for State-wide Use" - (EOPS Special Project No. 73-101). It soon became evident that the two projects were closely interrelated, and that in fact, the "Cost Effectiveness" project could not be completed without the standardized data which was being developed through the other project.

The Nor Cal Research Group sponsored the Cost Effectiveness Project in its first year when Walter Brooks of Shasta College served as the 1973-74 Project Director and Shasta College as fiscal agent. Walter Brooks filed a Progress Report entitled "Extended Opportunity Programs and Services, Cost Effectiveness Study" and requested refunding for 1974-75, in order to make use of the state-wide data base made possible through the completion of data forms developed by Special Project No. 73-101 with the data to be collected by the Chancellor's Office during the 1974-75 year. The request was approved and a second year grant was made to "continue to develop, refine, and validate the procedures by which the EOPS cost effectiveness standards model developed in 1973-74 will be implemented."

The first two purposes, to develop and refine the procedures, have been accomplished, and a cost effectiveness formula has been developed. The third purpose, "to validate the procedures," has not been possible because the processing of the data collection was delayed by the Chancellor's Office staff when concern over the confidentiality of the student's records was raised by the passing of the Buckley Amendment by the United States Congress.

The project participants are comfortable with the work which they have done, but they also realize that no formula, no matter how carefully devised, should be put into state-wide use without running a pilot test on it first. This we have not been able to do by the time the project had to be completed and filed. If the outcome of this report is to be implemented, it is critical that a pilot test actually be conducted to decide if "weightings" are required in the formula and to identify and obviate difficulties that might be encountered if implemented first on a state-wide basis.

The Nor Cal Research Group agreed to continue to sponsor the Cost Effectiveness Study in 1974-75 and Columbia College, in lieu of Shasta College, accepted responsibility for fiscal control. The Nor Cal Research Group asked Lorine Aughinbaugh, American River College, to serve as project director during the second year (1974-75) of the project.

As is the case with most group efforts all participants made valuable contributions; however, a special word of appreciation should be given to the following: Frances Munson for her patience as we requested draft after draft copy of the materials we were developing; to Dr. Lance Rogers for his mathematical know-how; to Dr. Paul Preising for his ability to reduce the mathematical concepts to logical rationale; and to Dr. Alfred Silvera for his ability to reduce what we were trying to say to precise, meaningful language.

Lorine Aughinbaugh
Project Director

Scope and Recommendations

In the process of developing the guidelines (1973-74) and procedures to implement a cost effectiveness formula (1974-75), the project committee has found it necessary to expand the scope of its effort into program elements as well as the development of a relatively specific formula detailed in the following chapters in this report.

Therefore, two sets of recommendations have been developed: one to implement the cost effectiveness formula; the other to merge the formula with EOPS master planning and program development so that needed services can be delivered in a cost effective manner.

A. Recommendations to Implement the Cost Effectiveness Formula

The cost effectiveness formula is a theoretical construct, or model, at this time and should not be applied without field testing for validation. Therefore, we recommend that:

1. The 1974-75 data related to the eleven colleges, which participated in the second phase (1974-75) of the Cost Effectiveness Project, be used on a pilot basis to develop hypothetical allocations for these colleges for 1975-76. These hypothetical figures should then be compared to the actual allocations made to these colleges for 1975-76 to determine the extent to which their current allocations would have been affected. This comparison should provide a basis for decisions about the "weighting" of the individual formula items which might be needed.
2. The cost effectiveness formula be implemented only after the first recommendation is completed.
3. Many questions have come from the field regarding the instructions and format for EOPS Forms No. 1 and No. 2; therefore, these should be carefully reviewed prior to the revision of the software neces-

sary to implement the new Cost Analysis Format as developed in Product 1.

4. Careful consideration be given to the implementation of the total SAF formula; however, the EOPS staff of the California Community Colleges Chancellor's Office and the EOPS Advisory Committee must determine what percentage of the total EOPS allocation formula should be based upon the cost effectiveness component. before the total SAF formula can be effectively implemented.
5. The revised EOPS Form No. 3, and the instructions, should be distributed to all EOPS Grant Colleges as soon as possible.

B. General Recommendations on Planning and Program Development

To fully implement the formula and use it effectively, we recommend that the following tasks be undertaken as quickly as possible:

1. Develop and implement an application procedure which maximizes the ability of the state to assess the program by cost effectiveness and at the same time enables the applicant college to assess its project by cost effectiveness.
2. Gather and analyze comparative cost data relative to EOPS programs and disseminate these data to participating colleges, the Board of Governors, the Legislature and other interested parties.
3. Upon request of individual community colleges provide on-site consultants and/or technical assistants drawn from state EOPS staff, or selected field people, to assist colleges in developing cost effective programs which meet both local and state EOPS objectives.
4. Develop intensive in-service training activities to foster understanding and skill in the use of the EOPS Forms 1, 2, and 3 which are the basis upon which the cost effectiveness formula has

been developed.

C. Recommendations for future development.

The following tasks are items 1.5, 1.6, 1.8, and 1.9 from the progress report for 1973-74 on cost effectiveness. They are still seen as valuable adjuncts to what has been accomplished to date.

1. Develop a method by which the uniqueness of a college program can be identified and assessed so that innovative approaches can be recognized.
2. Develop ways in which colleges which support the EOPS program with substantial district commitment evidenced by institutionalization of services and adequate finances, faculties, and staffing will be recognized.
3. Develop a review procedure which allows adequate review in terms of (1) time, (2) depth, (3) orientation of reviewers, and (4) expertise of review teams.
4. Develop ways by which ongoing EOPS programs can be monitored by evaluating teams, made up of field people and Chancellor's staff (similar to COPES visitation), who will make periodic visits and assess strengths and weaknesses and make recommendation.

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Chapter One

DEVELOPMENT OF PROCEDURES TO IMPLEMENT EOPS COST EFFECTIVENESS STANDARDS MODEL AND CONTINUED EVALUATION OF THESE PROCEDURES BY SELECTED COMMUNITY COLLEGES DURING THE 1974-75 ACADEMIC YEAR

INTRODUCTION

On July 15, 1974, representatives from fourteen colleges were invited to participate in the second year of the Cost Effectiveness Study. All of those invited had participated in either the Forms Development Project (EOPS Special Project No. 73-101) or the first year Cost Effectiveness Study (EOPS Special Project No. 73-102), and were aware of the progress made and the goals which had been set for the current year. After reviewing a copy of the project, (see Appendix A), thirteen of the fourteen colleges agreed to continue their participation. El Camino College was over-committed and regretted their inability to continue.

The first two day workshop was set for October 12-13, 1974. Unfortunately, two other colleges, Los Angeles City College and Sacramento City College, were unable to attend the first workshop. As half of the workshop time was expended in the first meeting, they were dropped from the project at that time.

Eleven community colleges participated throughout the year, and as it turned out the representatives from several of them devoted as many as six weekends beyond the three scheduled workshops. These colleges included American River College, Butte College, Columbia College, Cosumnes River College, Laney College, Orange Coast College, City College of San Francisco, San Jose City College, Santa Barbara City College, Santa Rosa College, and Shasta College. There were eighteen representatives from the eleven colleges with the following types of job assignment: EOPS Director, Financial Aid Officer, Administrative Dean - Student Services, Accountant, Tutoring Center Coordinator, Counselor, and Research Director.

Representation from the Chancellor's Office was provided by Ralph Matthews, Don Richardson or Kay Durkee, at the three scheduled workshops.

During the project year, the participants developed the following products:

1. Improved Cost Analysis format for the Data Processing Report needed by (a) individual schools to assess the scope, cost and success of their programs, (b) the Chancellor's Office to compute the Cost Effectiveness data for each college.

2. Formula for determining Cost Effectiveness of individual college programs.

3. Proposed State Allocation Formula.

4. Revised Data Form No. 3 (needed to collect the individual institutional data needed for implementation of Product No. II).

Each of the four products above is explained in detail on the following pages.

Chapter Two

Product I

Improved Format for the Cost Analysis Data Processing Report Development

During the first Project Year, a data processing program had been written by Jerry Stypes, Los Rios Community College District for use with EOPS Forms No. 1 and No. 2. A test run had been made on the data collected by twelve of the colleges participating in the Forms Development Project.

These data, plus a revised "cost analysis report form" developed by Walter Brooks at Shasta College, were the elements used by the participants at the first workshop on October 12-13, 1975.

The group of sixteen divided into six sub-groups (Administration, Recruitment, Tutorial, Counseling, Financial Aid, Work Study and Other) to study the cost data gathered by the pilot schools in 1973-74. Each group was to develop ranges of scope and cost based upon these data and then try to develop tentative cost standards. These data would then be compared with the actual data from Fall 1974, as soon as the data were available from the Chancellor's Office in February, 1975. The reports from each sub-committee are included as Appendix B.

The proposed cost analysis format presented by Walter Brooks was discussed briefly. Each representative was asked to review it carefully and send comments to the project director by November 1, 1974. Based upon this review, a second draft of the "Cost Analysis" format was prepared for presentation at the March 15, 1975 workshop.

Following the review of the sub-committee reports at the second workshop, the revised Cost Analysis Format was thoroughly reviewed by each sub-committee and approved by the group as a whole. The final format, a result of this discussion and review, is to be used to develop much of the individual

college data for the Cost Effectiveness Formula.

The representative from each pilot college had also submitted, as requested, the cost data from each colleges' 1973-74 final report (EOPS Form No. 7) as it related to the number of students served. This information was collated and ready for presentation at the March 15, 1975 workshop. The original intent had been to compare these data to that for Fall 1974, for the same schools, to determine if there had been any major cost changes in the year's time. As the data were not yet ready from the Chancellor's Office for Fall 1974, this was, of course, impossible to do. However, the material was studied for comparative costs between the pilot colleges and is filed as Appendix C.

Significance

The Cost Analysis Format provides individual college data by program category (Tutorial, Counseling, etc.). This information should enable each college to review the cost per EOPS student by program category for the prior year and to compare these data to the average cost per student for all colleges for each program category.

The Cost Analysis Format also provides summary data which is to be used by the Chancellor's Office to develop the Cost Effectiveness Formula for each participating college. The instructions for the use of the Cost Analysis Format are given under the heading Instructions and Source of Data for each factor in the formula. (See pages 10 through 18)

Product I, the final Cost Analysis Format, was unanimously approved by the workshop participants on March 15, 1975 and is presented on the following pages.

EOPS Cost Analysis Format
(Forms 1 and 2 Data)

College Name_____
Year_____
College Funds_____
% of Budget_____

PRODUCT I

A. All EOPS Students Summary	1. No. Stud.	2. No. W/D	3. GPA Change	4. Ave. Units Comp.	5. No. Cert.	6. No. AA's	7. No. Trans.	8. No. Emp.	9. Hrs.	10. Rate	11. Dollars Allocated	12. Cost per Student
1. Program Dev. and Maintenance	X										X	X
Readiness and Recruitment	X	X	X	X							X	X
Tutorial	X	X	X	X							X	X
Counseling:												
Professional	X	X	X	X					X	X	X	X
Peer	X	X	X	X					X	X	X	X
Instruction	X	X									X	X
Other EOPS Serv.	X	X									X	X
Financial Aid	X	X	X	X							X	X
EOPS Grant	X	X	X	X							X	X
EOPS Work Study	X	X	X	X					X	X	X	X
BEOG Eligible	X											
Other Fin. Aid	X											
2. Received Services only	X	X	X	X	X	X	X	X				
"Fin. Aid only"	X	X	X	X	X	X	X	X				
"Serv./Fin. Aid"	X	X	X	X	X	X	X	X				
3. Total Category A (Unduplicated)	X	XΣ	X	X	XΣ	XΣ	XΣ	XΣ			X	X
4. Financial Need Estimated	____											
5. Financial Need Met	____											

5/1/75
3rd rev.

B. Students New to EOPS	1. No. Stud.	2. No. W/D	3. GPA Change	4. Ave. Units Comp.	5. No. Cert.	6. No. AA's	7. No. Trans.	8. No. Emp.	9. Hrs.	10. Rate	11. Dollars Allocated	12. Cost Per Student
1. Readiness and Recruitment	X	X	X	X							X	X
Tutorial	X	X	X	X							X	X
Counseling:												
Professional	X	X	X	X					X	X		
Peer	X	X	X	X					X	X		
Instruction	X	X									X	X
Other EOPS Serv.	X	X									X	X
Financial Aid	X	X	X	X							X	X
EOPS Grant	X	X	X	X							X	X
EOPS Work Study	X	X	X	X					X	X	X	X
BEOG Eligible	X											
Other Fin. Aid	X											
2. Received Services only	X	X	X	X	X	X	X	X			X	X
"Fin. Aid only	X	X	X	X	X	X	X	X			X	X
"Serv./Fin. Aid	X	X	X	X	X	X	X	X			X	X
3. Total Category B (Unduplicated)	X	X	X	X	X	X	X	X			X	X

C. Students Returning or Cont. in EOPS	1. No. Stud.	2. No. W/D	3. GPA Change	4. Ave. Units Comp.	5. No. Cert.	6. No. AA's	7. No. Trans.	8. No. Emp.	9. Hrs.	10. Rate	11. Dollars Allocated	12. Cost per Student
1. Readiness and Recruitment (Returning only)	X	X	X	X							X	X
Tutorial	X	X	X	X							X	X
Counseling:												
Professional	X	X	X	X					X	X		
Peer	X	X	X	X					X	X		
Instruction	X	X									X	X
Other EOPS Serv.	X	X									X	X
Financial Aid	X	X	X	X							X	X
EOPS Grant	X	X	X	X							X	X
EOPS Work Study	X	X	X	X					X	X	X	X
BEOG Eligible	X											
Other Fin. Aid	X											
2. Received Services only	X	X	X	X	X	X	X	X			X	X
"Fin. Aid only"	X	X	X	X	X	X	X	X			X	X
"Serv./Fin. Aid"	X	X	X	X	X	X	X	X			X	X
3. Total Category C (Unduplicated)	X	X	X	X	X	X	X	X			X	X
D. Students - Former EOPS												
1. Enrolled this year	X	X			X	X	X	X				

Development of Products II and III

The EOPS State Allocation Formula developed by the Cost Effectiveness Project participants is composed of two concepts:

1. The cost effectiveness of a given college's program.

2. The need of low income, disadvantaged students found in the college's service area.

The first idea, cost effectiveness (E), must be calculated for both first time EOPS students (FT) and for continuing EOPS students (Ct). (Product II)

The second idea, need (N), must be judged against the potential pool of students in the service area, the cost of living index for the general geographic area, and other special factors (X) to be determined by the Chancellor's Office.

These two ideas, when combined, produce the proposed State Allocation Formula. (Product III)

It is anticipated that the percentages allocated to each component of the SAF formula, E, N, and X, should be determined by the EOPS Advisory Committee and the EOPS staff of the Chancellor's Office on an annual basis. For the purposes of this study, 30% has been used for the cost effectiveness component (E) and 70% has been used for need, plus special factors introduced by the EOPS staff of the Chancellor's Office.

The following pages explain the rationale for each item selected, provide the formula for determining the value of the item, and give instructions to colleges and recommendations to the California Community Colleges Chancellor's Office when necessary.

The final pages combine all factors into a proposed State Allocation Formula (SAF).

Chapter Three

Product II

Factors in the Cost Effectiveness Component

For E_1 First Time EOPS Students

- R_1 Retention
- C Creaming
- U_1 Units completed
- FTR First time student ratio

For E_2 Continuing EOPS Students

- R_2 Retention
- G Goal completion
- U_2 Units completed
- CtR Continuing student ratio

$E = E_1 + E_2$ or Cost Effectiveness

Each of these factors are detailed on the following pages (10 - 18).

I. Factor R Retention

A. Rationale

We hypothesize that the first time EOPS student retention rate will not be as high as all other students because we are dealing with a known population selected because they are high risk and; therefore, are presumed to be less able academically when compared to the "typical" community college student.

Further, we hypothesize that the retention rate of the continuing EOPS students will be higher than that of the first time EOPS students because:

1. The effects of the EOPS program components - i.e., services, grants, and grants and services are designed to encourage retention.

2. Those continuing are survivors; however, we recognize that despite all treatment, some EOPS students will drop out. Because of this lower drop out factor, the overall retention rate of the continuing EOPS student should be higher. Therefore, the retention rates of the two groups should be separated.

We chose to use "all day students" because these data already are available on almost all community college campuses.

We also agree that from a "purist" viewpoint, it would be more accurate to use semester, or quarter, completion rate for each period in which the student enrolled. However, from a practical standpoint, the data are not available readily in this form at most community colleges. Hence, we elected to use fall term data as a benchmark, knowing that fall figures are generated for many state and federal reports.

B. Formula There is a need for two "retention" factors (see above).

R_1 = the ratio for first time EOPS enrollees

$$\frac{\text{Retention Rate for first time EOPS students at College X}}{\text{Retention Rate for all day students at College X}}$$

R_2 = the ratio for all other EOPS enrollees

$$\frac{\text{Retention Rate for all other EOPS students at College X}}{\text{Retention Rate for all day students at College X}}$$

C. Instructions and Source of Data

1. To standardize the data used to compute Retention Rates:

Compute a. (as shown below)
For numerator, use figures from Fall Printout Format B3 (Total category B for Students New to EOPS) - Column 1 minus Column 2.

For denominator, use figures from Fall Printout Format B3 - Column 1.

Compute b. (as shown below)
For numerator, use figures from Fall Printout Format C3 (Total category C for Students Returning or Continuing in EOPS) - Column 1 minus Column 2.

For denominator, use figures from Fall Printout Format C3 - Column 1.

Compute c. (as shown below)
For numerator, use figures from Fall, final report as reported on Form 3.

For denominator, use figures from Fall, fourth week - as reported on Form 3.

Use the resulting figures in the formulae given in Section B, Factor R.

2. To compute Retention Rates

a. Retention Rate used in numerator for R_1

$$\frac{\text{Total number new EOPS students completing fall term at College X}}{\text{Total number new EOPS students enrolled at start of fall term at College X}}$$

b. Retention Rate used in numerator for R_2

$$\frac{\text{Total number all other EOPS students completing fall term at College X}}{\text{Total number all other EOPS students enrolled at start of fall term at College X}}$$

c. Retention Rate used in denominator for R_1 and R_2

$$\frac{\text{Total number all day students completing fall term at College X}}{\text{Total number all day students enrolled at start of fall term at College X}}$$

D. Recommendations to California Community Colleges Chancellor's Office

None.

II. Factor C Creaming Effect

A. Rationale

This factor is an index of the degree to which EOPS project directors and peer counselors select students with high risk of failure, or below average ability to succeed. Colleges with high risk populations are given a higher effectiveness rating as compared to those who "creamed" their population and selected the most able students. It is the feeling of the committee that this factor will provide a measure of the overall academic background of the students in the EOPS program and should negate creaming.

B. Formula

$$C = \frac{12}{\text{Average grade level completed by 1st time EOPS students at College X prior to college admission. (Consider 6 as minimum)}}$$

C. Instructions and Source of Data

For denominator, use average grade level completed by all new EOPS students from EOPS Form 1, item 18.

D. Recommendations to California Community Colleges Chancellor's Office

None.

III. Factor U Units Completed

A. Rationale

This factor measures the degree to which the EOPS students perform in terms of units completed as compared to all other students in the college. We hypothesize that EOPS students will tend to complete as many, or more, units as compared to all other students in the college. EOPS programs whose students equal, or exceed, the average units completed by all other students enrolled at the college are given higher effectiveness ratings.

Further, we hypothesize that continuing EOPS students will tend to have higher average unit completion rates as compared to first year EOPS students because:

1. The effects of the EOPS program components, i.e., services, grants, and grants and services are designed to encourage retention.

2. The continuing students have been able to survive with the assistance given them, and the total units completed by them should be higher than that of the first time EOPS student enrolled. Therefore, the units completed by first time and all other EOPS students should be separated.

We chose to use "all day students" for fall because these data already are available on almost all community college campuses.

B. Formula

1. There is a need for two "units completed" factors (see above)

   a. U_1 = Ratio for first time EOPS enrollees

   $$\frac{\text{Average number of units completed by first term EOPS students in College X}}{\text{Average number of units completed by all day students in College X}}$$

   b. U_2 = Ratio for all other EOPS enrollees

   $$\frac{\text{Average number of units completed by all other than first time EOPS students in College X}}{\text{Average number of units completed by all day students in College X}}$$

C. Instructions and Source of Data

1. Only day students for fall are to be used in these computations. Include both full-time and part-time.

2. To standardize the data used to compute Units Completed:

Compute a. (as shown above)	For numerator, use figures from Fall Print-out Format B3, Column 4. For denominator, use figures from Fall, final report as reported on Form 3.
Compute (as shown above)	For numerator, use figures from Fall Print-out Format C3, Column 4. For denominator, use figures from Fall, final report as reported on Form 3.

D. Recommendations to California Community Colleges Chancellor's Office

We recommend that:

1. Form 3 be revised so as to get the average number of units completed by all day students for fall semester, or quarter, from each college.

2. Fall data only be used as the basis for this comparison. Although the Chancellor's Office collects data on an annual basis, college reports are normally prepared for a semester, or quarter, at a time. Actual completion of units per semester, or quarter, would be obscured if cumulative units were used for a year's period.

3. Any student who starts an EOPS program during the summer to be counted as having started in fall with regard to coefficient U_1 - so as not to lose these students from the total EOPS student tally.

IV. Factor FTR Ratio of first time EOPS to Total EOPS

A. Rationale

The EOPS legislation was written so as to give priority to first time EOPS students. Once a student is started in college, it is assumed that other types of financial assistance such as CWS and other grant programs can be used to supplement student funds. The inclusion of this factor will cause EOPS program directors to continue to bring new students into the program. Additionally, EOPS programs with increasing student enrollments will be favored by this factor, since they will have a better chance for acquiring a higher percentage of first time EOPS students.

It should be noted that programs which allow continuing EOPS students to drop will be penalized by factor R since they will also have a low retention rate. Factor CtR will also be affected; that is, the greater the number of continuing students, the higher factor CtR will be.

B. Formula

$$FTR = \frac{\text{Number of first time EOPS students in program at College X}}{\text{Total number of students in EOPS program at College X}}$$

C. Instructions and Source of Data

For numerator, use Fall Printout Format B3, Column 1.

For denominator, use Fall Printout Format A3, Column 1.

D. Recommendations to California Community Colleges Chancellor's Office

None.

V. Factor CtR Ratio of Continuing EOPS to Total EOPS

A. Rationale

Although the EOPS legislation places an emphasis on recruitment of first time EOPS students, the total intent of the program is to interest as many disadvantaged low income students as possible in college, and provide whatever aid, financial or services, is required to help them meet their goals. The college that brings in first time EOPS students will benefit from Factor FTR. The college that maintains its enrollment of both continuing and former EOPS students until they have reached their goals will benefit from Factor CtR.

B. Formula

$$CtR = \frac{\text{Number of all other than first time EOPS students in program at College X}}{\text{Total number of students in EOPS program at College X}}$$

C. Instructions and Source of Data

1. All students who entered the college as EOPS students and are still enrolled--either as continuing EOPS students or as former EOPS students--should be counted.

   For numerator, use Fall Printout Format C3, Column 1 plus D1, Column 1.

   For denominator, use Fall Printout Format A3, Column 1 plus D1, Column 1.

2. $\frac{Ct + FT}{Total}$ (Continuing EOPS Total + First time EOPS Total = Total of all EOPS students in College X)*

D. Recommendations to California Community Colleges Chancellor's Office

None.

* CtR and FTR are ratios; therefore, as an arithmetical check, the sum of CtR and FTR should equal one.

VI. Factor G Goal Completion

A. Rationale

These data will be generated on both continuing and former EOPS students who are enrolled during the year. This factor measures the extent to which EOPS students at College X do in fact attain their goals. The greater percent of those who achieve their goals the higher the effectiveness of the program. ("C" below).

B. Formula

$$G = \frac{\text{Number of EOPS students who completed stated goal during year}}{\text{Total number of EOPS students in program at College X that year minus first time EOPS enrollees}}$$

C. Instructions and Source of Data

1. The number of EOPS students who completed stated goal during year is the sum of columns 5 (certificates), 6 (AA degrees), 7 (transfer), and 8 (employed) from the printout format summarizing the data from Form 1 and Form 2.

2. For numerator, use Fall Printout Format C3, Columns 5,6,7 8 plus D1, Columns 5,6,7, and 8.

3. For denominator, use Fall Printout Format C3, Column 1, minus D3, Column 1.

D. Recommendations to California Community Colleges Chancellor's Office

None.

Factor E Combination of Factors to Develop Cost Effectiveness Formula

A. Rationale

No single factor will indicate the cost effectiveness of a college EOPS program. All factors previously discussed (pages 10 to 17) must be combined. As the program deals with both new students and all other EOPS students, both elements must be treated, and treated separately. We believe first time EOPS and Continuing EOPS students are equally important; hence, E_1 and E_2 in the formula below are weighted equally.

B. Formula

E_1 = Effectiveness Ratio for first time EOPS students or the product of (R_1) (C) (U_1) (FTR)

E_2 = Effectiveness Ratio for all other EOPS students or the product of (R_2) (U_2) (G) (CtR)

Therefore, $E_1 + E_2$ = Product II, or E (Total Cost Effectiveness)

C. Instructions and Source of Data

Self-explanatory.

D. Recommendations to California Community Colleges Chancellor's Office

We recommend that:

E represent 30% of the total dollar allocation to College X

Chapter Four

Product III

Product III - Proposed State Allocation Formula combines Product II Cost Effectiveness (E) with Need (N) and Special Factors (X).

Factors in the Need (N) component include:

L Requested Service Level

P Potential Pool

I Cost of Living Index

Therefore, N (Need) = the product of (L) (P) (I)

Factors in the Special Factors (X) component will be determined by the EOPS staff in the Chancellor's Office.

As explained in the introduction to the development of Products II and III, the percentages used for each component of the SAF Formula should be determined by the EOPS staff of the Chancellor's Office and the EOPS Advisory Committee on an annual basis. For this study, 70% has been used for the Need Component (N) plus the Special Factors Component (X).

I. Factor L Requested Service Level

A. Rationale

Each college annually expresses the need which it has to serve potential and identified EOPS students. This factor then is a measure of the requested service level for College X for the following year. This factor is included to insure maintenance or expansion of current programs.

B. Formula

$$L = \frac{\text{Number of EOPS students for whom College X requests funds}}{\text{Average number of EOPS students served by College X in past three years}}$$

C. Instructions and Source of Data

1. For numerator, use College X's request on new application for funds in the formula.

2. For denominator, use the average number of unduplicated EOPS students College X reported serving on the last three annual EOPS Form 7 reports filed. (The final claim report.)

D. Recommendations to California Community Colleges Chancellor's Office

None.

II. Factor P Potential EOPS Pool

A. Rationale

Factor P measures the ratio of the actual number of EOPS students served by College X to the number of potential EOPS students in service area of College X.

We believe that colleges that have the highest need for EOPS funds are those that have the highest ratio of actual EOPS students to be served divided by potential EOPS students to be served. If the factor P is handled mathematically as defined it will have too severe an effect on the need component of the State Allocation Formula; therefore, we propose softening this effect by ranking all factor P's from highest to lowest, dividing the resulting list into quartiles, and assigning a numerical value for each quartile, such as 1.1, 1.2, 1.3, and 1.4. The quartile containing highest P's will receive the lowest numerical value.

B. Formula

$$P = \frac{\text{Total number of persons served during prior year by EOPS at College X}}{\text{Total number of potential EOPS students in service area of College X}}$$

C. Instructions and Source of Data

1. For numerator, use data filed by college for prior year on Form 7. "Prior year" refers to the fiscal year (July 1 - June 30) completed prior to the filing of the new application and should include summer as well as fall and spring semesters, or fall, winter and spring quarters.

2. For denominator, use the 1970 census tract data for persons not employed, and not in school, age 16-21 to determine consistently the potential pool of persons requiring service. As the same data are not available for persons aged 21-24, the age range into which many EOPS students fall, the known number should be multiplied by 2.

D. Recommendations to California Community Colleges Chancellor's Office

We recommend that:

1. The California Community Colleges Chancellor's Office staff prepare the EOPS Student Data Pool for each community college district as recommended under the rationale for Factor P.

2. In the case of multiple campus districts, the California Community Colleges Chancellor's Office, with district and college staff, will assign census tract numbers to each district. The district will assign the census tracts to the colleges within the district.

3. Any district or college may protest the doubling of the 16-21 total in cases where they can prove that this approach is detrimental.

4. The California Community Colleges Chancellor's Office contact the Demographic Section of the California State Department of Finance to determine if their annual projections on population growth for each district could be used to estimate the "potential pool" more accurately than the recommended use of 1970 census data on the 16-21 year olds given in C2.

III. Factor I Cost of Living Index

A. Rationale

Since there is a slight difference in the cost per year per student to attend a metropolitan college as contrasted with a rural college, and these figures are available, they should be included in the Need Component of the State Allocation Formula.

B. Formula

$$I = \frac{\text{Cost of Living Index for college geographic area}}{\text{Cost of Living Index for state as a whole}}$$

C. Instructions and Source of Data

Annually use the California Cost of Living Index as of December, prior to filing of new EOPS application.

D. Recommendations to California Community Colleges Chancellor's Office

We recommend that:

1. The Chancellor's Office supply the above data for each college each year based upon the geographic area in which the college functions.

2. This factor be used as a correctional factor for N. The higher the cost of living index in the college area, the greater the increase in the correction on the Need Component.

Factor N Combination of Factors to Develop Need Formula

A. Rationale

No single factor will indicate the need of a college for EOPS assistance. All factors previously discussed (pages 20 to 23) must be combined. As the need expressed by each college is affected by the requested level of service, the potential pool of students to be served, the cost of living index for the area as well as special factors developed by the EOPS staff, all elements must be treated and treated separately. We believe the factors L, P, and I are of equal importance and should be given equal weight. The weighting of Special Factors (X) in relation to these factors, however, will have to be determined by the Chancellor's Office EOPS staff.

B. Formula

N (or Need) = (L) (P) (I) + (X)

Therefore, N + X = Need

C. Instructions and Source of Data

Self-explanatory.

D. Recommendations to California Community College Chancellor's Office

We recommend that:

N represent 70% of the total dollar allocation to College X.

Proposed State Allocation Formula

As stated earlier, the State Allocation Formula is composed of two parts, 1) the cost effectiveness of a given college's program (E), and 2) the expressed need (N) for the service area of that college plus special factors determined by the EOPS staff (X).

Effectiveness is measured for both first time EOPS students and for continuing EOPS students by the following: EOPS retention versus college retention rate (Factors R_1 and R_2), creaming effect (Factor C), EOPS student units completed versus all other students (Factors U_1 and U_2), goal completion (Factor G), and ratio of first time EOPS students to all other EOPS students (Factors FTR and CtR).

Need is measured for each college by the following: the discrepancy between the potential pool of EOPS students in the college's service area and the actual number of EOPS students served (Factor P), the proposed EOPS service level (Factor L), and the cost of living index for the service area of the college, (Factor I).

Special Factors - determined by the EOPS staff (Factor X)

In each of the factors used above, with the exception of Factor P and Factor X, the number resulting from the data entered into the formula was used.

Therefore, $SAF = (E_1 + E_2) \times 30\% + (N+X) \times 70\%$

$$E_1 = (R_1)\ (C)\ (U_1)\ (FTR)$$

$$E_2 = (R_2)\ (G)\ (U_2)\ (CtR)$$

$$N = (L)\ (P)\ (I) + (X)$$

To calculate the State Allocation Formula for each college for the following year, data from each college are loaded into the formula, from data available on Forms I, II, and III, and corrected as required for Factor P.

Once the SAF is calculated, we recommend the following procedure for its use:

Step 1 Compute average dollar allocation per EOPS student

Divide total EOPS allocation for year by the total number of students all colleges propose to serve and determine the average dollar amount available per student.

Step 2 Compute average SAF score for state

Total the SAF scores calculated for each college and divide by the number of colleges on the list to determine the average SAF score.

Step 3 Compute positive SAF score for each college

a. Subtract the average SAF score from each individual college SAF score. The resulting number, either positive or negative, is the deviation from the mean.

b. Add 1.000 to each of the deviations computed in Step 3(a) to remove negative numbers.

Step 4 Compute the EOPS allocation for College X for the following year

Multiply number of students to be served at each college by that college's deviation from the mean score as calculated in Step 3(b) multiplied by average dollar amount calculated in Step 1 to compute the EOPS allocation for the college for the following year.

See Appendix D for Sample Calculation of SAF.

Chapter Five

EOPS Form 3 - Product IV

The original Form 3, developed as part of the EOPS Forms Development, Project No. 73-101, was designed to transmit institutional data to the Chancellor's data processing center. These data were needed in order to develop the Cost Analysis figures for each college. As the format for the Cost Analysis data was altered to provide more meaningful information, both for the Chancellor's Office and for the participating colleges, and as the Cost Effectiveness formula was developed to use fall, rather than annual, data, it became necessary to revise the original EOPS Form 3.

The additional data required included:

1. Total number of all day students who completed the fall term at College X.

2. Total number of all day students enrolled at the start of the fall term at College X.

3. Average number of units completed by all day students for fall term at College X.

The original form had also requested the actual amounts expended from EOPS grant funds for various program items for the year. It had been the intent that the data on EOPS students would be collected at the conclusion of the grant year. However, as new grants are allocated during the spring for the following year, it was agreed by the committee that:

1. The Cost Effectiveness data should be collected by the Chancellor's Office following the close of the fall term, prior to the awarding of new grants for the following year.

2. At this point in time, it was felt that the budgeted figures (divided by the number of terms in College X's academic year) would be a better index than the expended figures which would not be available for another six to eight months.

The revised EOPS Form 3 is presented for review on the next pages (28-29).

EOPS FORM 3—INSTITUTIONAL DATA

FOR FALL 197___

COLLEGE NAME _____

COLLEGE ADDRESS _____

NAME AND TITLE OF PERSON SUBMITTING THIS FORM _____

PHONE _____

A. GENERAL COLLEGE DATA

1. TOTAL NUMBER OF ALL DAY STUDENTS ENROLLED AT START OF THE FALL TERM _____

2. TOTAL NUMBER OF ALL DAY STUDENTS COMPLETING THE FALL TERM _____

3. AVERAGE NUMBER OF UNITS COMPLETED BY ALL DAY STUDENTS FOR THE FALL TERM _____

CHECK ONE
ACTUAL ____
ESTIMATE ____

4. OVERALL GPA FOR DAY STUDENTS FOR FALL TERM
(TOTAL NUMBER OF GRADE POINTS EARNED DIVIDED BY TOTAL UNITS ATTEMPTED) _____

B. SPECIFIC EOPS BUDGET DATA

1. TOTAL EOPS ALLOCATION FOR YEAR _____

2. HOURLY RATE PAID FOR EOPS SERVICES

TUTORIAL _____
COUNSELING—PROFESSIONAL _____
COUNSELING—PEER _____
OTHER SERVICES _____

3. AMOUNT OF EOPS FUNDS BUDGETED FOR:

A.	PROGRAM MAINTENANCE	_____	PART A
B.	RECRUITMENT	_____	PART B
C.	TUTORIAL	_____	PART B
D.	COUNSELING	_____	PART B
	PROFESSIONAL	_____	
	PEER	_____	
E.	OTHER SERVICES	_____	PART B
F.	EOPS GRANTS	_____	PART C
G.	EOPS WORK STUDY	_____	PART C

C. COLLEGE SCHEDULE

CHECK ONE

1. SEMESTER TERM _____

2. QUARTER TERM _____

DATE SUBMITTED _____

#74-101 (4TH REVISION)

Instructions - EOPS Form 3

1. Submit two copies of Form 3 at the time the punch cards C and D are submitted to the Chancellor's Office for fall.

2. A1. Use the official 4th week fall enrollment data for all day students as reported to the State of California, Department of Finance (Form CCAF 130).

3. A2. Use the official completion rate figure used by your college to compute the fall semester's withdrawal rate.

4. A3. Use data generated either through regular Data Processing printouts, or ask assistance of registrar for best possible estimate.

5. A4. Compute the GPA for day students for fall term as follows: Total Number of Grade Points Earned Divided by Total Number of Units Attempted at Fourth Week of Semester.

6. B1. Total EOPS allocation for college for year as stated in official letter to President of college from the Chancellor's Office.

7. B2. List the hourly rate established by the college board for each of the services listed.

8. B3. Use the amounts budgeted for the year for each item listed by the college on Form No. 7 and approved by the Chancellor's Office.

9. C1. & C2. Please check the length of term which applies to your college - either semester or quarter.

Appendixes

Office of the Chancellor
California Community Colleges
825 15th Street
Sacramento, California 95814

Form No. EOP #1 Submit 4 Copies
FOR OFFICIAL USE ONLY
Project No. SP 74

APPLICATION FOR AN EXTENDED OPPORTUNITY PROGRAMS AND SERVICES PROJECT:

THREE-YEAR MASTER PLAN (1974-75, 1975-76, 1976-77)

1. College Name and Address:
   Columbia Junior College and NorCal Research Group
   P. O. Box 1849
   Columbia, California 95310

2. District Name and Address:
   Yosemite Junior College District
   P. O. Box 4065
   Modesto, California 95352

3. Total Budget Amount of the Project from Column 4 of Budget Sheets:

   Total Part A $_____

   Total Part B $_____

   Total Part C $_____

   Grand Total $ 15,000

   Attach Exhibit B, the complete budget

4a. Name and title of the contact person at the college responsible for this application:
   Name Dr. Patricia C. Hertert
   Title Instruc. Resources Consultant
   Phone (209) 532-3141

4b. Name and title of Program Administrator:
   Name Mrs. Lorine A. Aughinbaugh
   Title Project Director
   Phone (916) 484-8306

5. Signature of the President of the Board, or his designee:

   Name (Type): Dr. J Kenneth Rowland, Superintendent, Yosemite Junior College Dist.

   Signature: J Kenneth Rowland

5.a. Signature of the President of the College:

   Name (Type): Dr. Harvey B. Rhodes, President

   Signature: Harvey B. Rhodes

DEVELOPMENT OF PROCEDURES TO IMPLEMENT EOPS COST EFFECTIVENESS STANDARDS MODEL AND CONTINUED EVALUATION OF THESE PROCEDURES BY SELECTED COMMUNITY COLLEGES DURING THE 1974-75 ACADEMIC YEAR

I. PURPOSE

The purpose of this project is to continue to develop, refine, and validate the procedures by which the EOPS cost effectiveness standards model developed in 1973-74 will be implemented.

II. HISTORY

During the 1973-74 academic year, two projects pertaining to data gathering and cost effectiveness studies pertaining to services for EOPS students were carried out in conjunction with the Chancellor's Office. The first of these projects entailed the development of program standards against which cost effectiveness could be measured. A second study to develop procedures by which data gathering could be standardized was also developed. These procedures include the gathering of cost data concerning the major EOPS program components of tutorial, paraprofessional counseling, financial aids, readiness programs, and work study. During the 1973-74 academic year, data gathering procedures to implement the cost effectiveness standards model were developed and tested by 14 community colleges located throughout the state. Current plans call for the utilization of this common data gathering format to maintain records for EOPS students enrolled in community colleges throughout the state. This procedure will be implemented during the 1974-75 academic year by the Chancellor's Office in order to implement cost effective standards numbers 1.2, 1.3, 1.4, 1.7, and 1.10.

Additional procedures need to be developed to implement the total list of standards which were developed in 1973-74. Further refinement of the data gathering procedures is required. This proposal addresses itself to the continuation of these activities.

III. PROBLEM

No accurate data has been available to date regarding the average dollar cost of providing effective assistance to an EOPS student. The need for this data has been highlighted by

1. The Legislative Analyst in his 1972 Report indicated that the allocation procedure used by the Board of Governors to colleges on the basis of a formula does not substantially reward the most cost effective, innovative or productive projects.
2. The 1972-73 Budget Act (Chapter 156) Item 296 provides $4,850,000 for Community College EOPS. Control language for this item indicates that the Board of Governors shall allocate funds on a priority basis and only to local programs which demonstrate their effectiveness and which have the most pressing need for financial aid for students.

IV. OBJECTIVES

1. To refine and validate the data gathering procedures to implement the following cost effectiveness standards

State Level (1.0)	1 Level (2.0)
1.2 Develop and implement an application procedure which maximizes the ability of the state to assess the program by cost effectiveness.	2.2 Develop and implement an EOPS project which maximizes the ability of the college to assess the project by cost effectiveness.

1.3 Develop and monitor standards of cost effectiveness by which local college programs would be assessed.	2.3 & 2.4 Provide data to enable monitoring of cost effectiveness of EOPS projects of individual community colleges.
1.4 Gather and analyze comparative cost data relative to EOPS programs and disseminate data to participant colleges, the Board of Governors, the Legislature, and other interested parties.	
1.7 Upon request of individual community colleges, provide on-site consultants and/or technical assistants drawn from state EOPS staff or field people to assist colleges in developing their projects in relation to individual community college objectives and state-wide objectives. Areas of consultation should include: a. program development (need identification) b. application preparation c. background information gathering d. assistance in the design of a plan in evaluation e. other	2.7 Request and utilize consultation and/or technical assistance of state EOPS staff and other qualified consultants.
1.10 To develop in-service training activities to foster understanding and skill in the implementation of cost effective procedures.	2.10 To provide EOPS staff opportunities to participate in in-service training activities.

Four components will be developed to reach the primary objectives, as follows:

a. To formulate the ranges of the scope of costs and services from the data gathered in 1973-74.

b. To identify the implications from this experience as they relate to the 14 pilot colleges.

c. To modify the procedures based on the 1973-74 experience for the processing of 1974-75 information on all colleges.

d. To identify the components of a training session for consultants to colleges (specialized consultants on Chancellor's staff) toward the goal of developing in-service training services available to all colleges.

2. To identify the common components of extended opportunity master plans currently in operation at the pilot colleges and develop a framework for the state-wide master plan in order to implement cost effectiveness standard

State Level (1.0)	Local Level (2.0)
1.1 Develop a state-wide master plan detailing the need for EOP programs. Provide from state data each district with a profile of the needs of its population for use in the development of the college master plan. Factors will be identified and weighted to develop need ranking by district or college.	2.1 Develop a college master plan for extended opportunity programs based on a refinement of the state prepared need assessment profile. This master plan should articulate with state master plan and provide a framework for the incorporation of EOPS with the total college program and services.

3. To outline plans for future procedure development to implement the following cost effectiveness standards:

1.5 Develop a method by which the uniqueness of a college program can be identified and assessed so that innovative approaches can be recognized.	2.5 & 2.6 Develop ways and means for expanding and/or improving extended opportunity program services.
1.6 Develop ways in which colleges which support the EOPS program with substantial district commitment evidenced by institutionalization of services and adequate finances, faculties, and staffing will be recognized.	
1.8 To develop a review procedure which allows adequate review in terms of (1) time, (2) depth, (3) orientation of reviewers, and (4) expertise of review teams.	2.8 Develop and utilize management tools (such as flow charts, time/task/personnel charts, for example) to monitor the progress of the project.
1.9 To develop ways by which ongoing EOPS programs can be monitored by evaluating teams made up of field people and Chancellor's staff (similar to COPES visitation) who will make periodic visits and assess strengths and weaknesses and make recommendation.	2.9 Prepare information and materials for the annual assessment to be conducted by the state EOPS review team and where feasible, implement recommended changes.

V. PROCEDURES

This project will be jointly sponsored by the NorCal Community College Research Group and Columbia Junior College. NorCal will be responsible for the implementation of project activities, to include planning and conducting workshops, evaluation of field testing of cost effectiveness procedures, the identification of commonalities for master plan, the identification of in-service training components, and the preparation of the final report and attendant recommendations for the Chancellor's staff. Columbia Junior College will be responsible for the fiscal administration of the project.

1. The project will be conducted in full consultation with the Dean of Student Personnel Services, Chancellor's Office.

2. The project will be completed by June 30, 1975, and submitted to the Chancellor's Office in the form of a final report.

3. The Project Director will be available to work with advisory committees which assist the Chancellor's Office, upon their request.

4. The project will be implemented as follows:

   a. Colleges from the following list will be invited to participate:

      American River College
      Butte College
      Columbia Junior College
      Cosumnes River College
      El Camino College
      Laney College
      Los Angeles City College
      Orange Coast College
      Sacramento City College
      City College of San Francisco
      San Jose City College
      Santa Barbara City College
      Santa Rosa Junior College
      Shasta College

      These colleges participated either in the EOPS Special Project 73-101 (forms development), or EOPS Special Project 73-102 (cost effectiveness), during the 1973-74 year.

   b. Three workshops will be held during the project year.

      1) First workshop - late September or early October, 1974

         a) Review cost data gathered during 1973-74.

         b) Commence the development of ranges of scope and cost based on that data.

         c) Commence the identification of component parts of college master plans for extended opportunities.

      2) Second workshop - late February, 1975

         a) Relate the first term 1974-75 data to the ranges developed on 1973-74 data, and modify as necessary.

         b) Relate the stated objectives of the colleges for 1974-75 to the cost effectiveness data collected for the first term of 1974-75 to determine if qualitative measures can be identified.

         c) Review the proposed components of the extended opportunity master plan and forward recommendations to the Chancellor's Office.

      3) Third workshop - May, 1975

         a) Finalized procedures for the use of all colleges in cost effectiveness reporting will be forwarded to the Chancellor's Office based upon the 1974-75 experience with the pilot colleges.

b) Begin preliminary identification of needed procedures to implement cost effectiveness standards 1.5, 1.6, 1.8, and 1.9.

VI. PROJECT DIRECTOR

The Project Director will be responsible to plan and implement all workshop activities, coordinate data processing activities, maintain the continuing liaison with the Dean of Student Personnel Services in the Chancellor's Office, develop interim and final reports, and to identify and recommend additional activities for future development. The Project Director will also serve as a consultant to assist colleges in implementing procedures, at the request of the Chancellor's Office.

VII. MONITORING

Monitoring of the project will be carried on by Dr. Patricia C. Hertert, Instructional Resources Consultant of the Yosemite Junior College District, and the NorCal Steering Committee.

VIII. DISSEMINATION OF RESULTS

Copies of the final report will be distributed to all participant pilot colleges and the Chancellor's Office. The final project report will be made available to other colleges through the ERIC system and through the Chancellor's Office.

IX. BUDGET

1. Project Staff

a. Project Director

25 man days @ $100 per day — $ 2,500

b. Consultant

2 man days @ $100 per day — $ 200

c. Clerical*

110 hours @ $3.61 per hour — $ 397

2. Pilot Colleges Participation

a. 18 participants x 4 workshop days @ $85 per day — $ 6,120

b. Per diem

18 participants x not to exceed $70 per diem expenses for the 3 workshop session. Actual costs, not to exceed — $ 1,260

c. Workshop travel expenses

1) 5 participants from southern California colleges - estimated @ $150 each — $ 750

2) 5 participants from Bay Area and northern border colleges - estimated @ $75 each — $ 375

3) 8 participants from the Sacramento area - estimated @ $50 each — $ 400

$ 1,525

3. Supplies and Materials - estimated @ — $ 178

4. Travel for Project Staff

Estimated @ 1,000 miles @ 12¢ per mile — $ 120

5. Data Processing Costs

Run of first term data and program corrections, estimated @ — $ 1,000

6. Contingency Fee — $ 500

7. 8% Indirect Costs — $ 1,200

TOTAL PROJECT COSTS — $15,000

* Based on classified salary schedule for Yosemite Junior College District.

Administrative Sub-Committee

The following recommendations for Form 3 are based upon the discussions of the sub-committee and the committee as a whole:

1. Form 3 should provide for space to show the data Form 3 is completed.

2. A paragraph statement of instructions for completing Form 3 may be helpful. The statement should be included at the top of the form.

3. Provision should be made for identifying the report period, i.e., Fall Semester, 1974; Winter Quarter, 1974. It is suggested that this be item 2 in order to provide immediate recognition of the period for which the overall withdrawal rate and the overall GPA are reported. (See item 6 of these recommendations for possible reordering.)

4. Further consideration of a more specific breakdown or the present item 6, "Amount of EOPS funds expended for": may be necessary.

5. Provision should be made for identifying the potential number of persons within the college service area eligible to participate in the EOPS program. (It is anticipated that the Chancellor's Office will supply this information to each college district.)

6. Following the items seeking information for overall college withdrawal rate and the overall college GPA (within the semester or quarter), provision should be made for an item to determine the overall average number of units completed.

7. Recommendation should be made to the Chancellor's Office that no cost effectiveness data be collected or analyzed until all data on the budget has been turned in, and that this should be done on an annual basis.

Al Silvera, Chairman
Santa Barbara City College

Recruitment Section - Jim Mitchell, Butte College, Chairman

1. Review of data from 1973-74 - special project

   1.1 Range $12.25 - $43.81

   1.2 Mean $28.81

   1.3 N - 3 out of 14

2. EOPS Characteristics

   2.1 Units Completed

   Total units completed does not relate to the semester/quarter GPA as reported.

   2.2 New area

   Units completed during time period and the related GPA

   Form No. 3

   e.g. Fall Quarter, 1973

	Male	Female	Total
0 - 6	2	1	3
6.5 - 9	4	2	6
9.5 - 11.5	0	1	1
12.0 - 15	20	30	50
15.5+ -	2	3	5

   2.3 All areas reported in percentages in addition to raw figures.

Report of the "Tutorial" Committee

Assigned persons: Richard Hernandez - Orange Coast
Art Cardoza, American River College
Lance Rogers - City College San Francisco, Chairman

The Tutorial Committee implied throughout its discussion that Tutorial per se is a misnomer. The report of the "other EOPS Services" committee underscored the need to point out that Tutorial includes all the learning resource opportunities which we should accord to our students (including and especially our EOPS students). This includes some dimensions of peer counseling, reading, motivational, study skills, library skills, etc.

The committee whole-heartedly endorsed my suggestion that all our statistics including those for Tutorial be produced by the computer program with a percentage column for each category as well as the raw data as stated in our printout as distributed today.

The committee unanimously endorsed the concept that all allocations of dollars and/or hours of work study funds or other resources be allocated taking into consideration as part of the allocation formula the pool of persons in the category involved e.g. - how many EOPS eligible persons should be receiving dollars tutoring including the above learning skills, special help, etc. in addition to the number which are being serviced etc.

The committee unanimously moved that work study (or other) committee include provision for a student to be encouraged (as a part of his work study contract) to be tutored.

Resolved that all students should be tutored in a general Tutorial Center rather than special EOPS tutorial centers. The recommendation is for a general central, tutoring center from which all tutoring and all tutors shall eminate. The costing for each program (say EOPS) will be pulled out by those in control of the tutoring program so that EOPS funds will be completely accounted for on a cost benefit basis. (Number of "EOPS type" persons who benefited from what expenditure.) Rationale... EOPS students should not be isolated from the mainstream.

The data available to the committee revealed an average cost per student as $15.99 at somewhat less than 50 hours per semester per student. The range of this cost - institutions for which data was available revealed a spread between) and $34.40. This wide range became more understandable when it became clear that the zero cost occurred when that district supported the tutorial effort at the 100% level so not EOPS funds were expended to tutor the EOPS students at a most satisfactory level. The "high cost" institute supported its tutorial effort at the 50%-50% level (EOPS funds - District funds). The committee recommends that the printout of data show the district effort in dollars at least on Form No. 3 and probably by function.

The committee recommended that in addition to its statistics as reported in our sample today, that median statistics for each category be reported in addition to range and average.

The statistics that are needed include: number involved, number saved

(definition for saved must be clearly delineated as per discussion, GPA - but in addition change in GPA as per orange card submitted (included units by semester and cumulative).

Recommend that in "accomplishment" category additional variable must be identified and then shall be collected so that they are "quantifible" and so can be added to our data bank.

For example, "Did student continue" is not a satisfactory variable unless computer program looks at whether student should continue, has completed program, reached educational goal, changed goal, necessity change of institution. Has personal problems whether temporarily. Follow-up needed as well as status reporting. Accomplishment shall be categorized under before, now, and follow-up.

Counseling - Hank Walters, Cosumnes River College, Chairman

1. Reason for reporting - male/female.

2. Better define student objectives at time of entry into EOPS. Would be easier to evaluate success of student while in program.

3. Method of follow-up developed. Follow student after withdrawn or completion of goal or objective.

4. Definition of "saved" - how to determine if counseling "saved" the student.

5. Is cost per student distorted by including costs which should be charged to district. E.g., peer counselor who may counsel student not an EOPS student but his salary would be included in cost of EOPS counseling program.

6. When cost of counseling program is shown as 0 should there be a note made of how that part of the program was funded.

7. Should percentage be shown of students receiving tutoring, counseling, etc.? Percentage completing each area.

Financial Aid Sub-group — LaVerne Allen, Clarke Dominguez, Peter Selo, Laney College, Chairman

I. Forms Data Review

A. Form 1 and 2

1. Pertinent data on financial/income data (29-50) should be completed by the office staff not the students. The staff should be familiar with the Needs Analysis and the data used in it.

2. If students must complete Form 1 then data must be validated by office staff.

3. Consider placing instructions on the form rather than on a separate sheet.

B. Data

1. Basic data is adequate on Forms 1, 2, and 3.

2. "Characteristics" should not be analyzed by race as suggested yesterday but rather by student and/or program component cost.

II. Suggested Analyses

A. Work Study vs Grants

1. Suggest an analysis of EOPS Work Study student vs those on grants - to study the educational effectiveness of these two components - e.g. does the work study permit a greater progress or benefit to student than a grant student? Required for program decision and local resource allocation as well as state-wide guidelines for use of funds.

2. Financial Need Index

a. It is assumed that Financial Need is the rationale for allocating work study grants, and other financial aid.

b. Thus a major task must be to develop a sound index of financial need to compare the cost effectiveness of the total financial aid package.

c. At least two factors should be onsidered in developing the Need Index:

i) Cost of living index in the area.

ii) A weighted average of the cost of attending each college.

d. Procedure for calculating "weighted average"

i) Determine college budget for the following categories of students

- Single Dependent
- Single Independent (e.g. include the dependent living away from home)
- Single with Dependents (parent with children and determine unit cost for a dependent then multiply by number of dependents to get figure)
- Married with or without dependents

ii) Determine the weighted average by multiplying the number of students in each category by the college budget for that category. Then divide the total figures by the student population at the college.

iii) Determine the mean for each college and then find the ranges by determining the median of the means. This will help to set the ranges of need and the related fiscal expenditures for financial aid.

e. There will also need to be a determination of colleges by urban, rural, and semi-urban area with the characteristics for these defined (e.g. cost of living, population density, occupational/industrial distribution, etc.). The median of the means should then be compared according to the region/area in which the college is located.

f. Consider the data processing to graph the data on need rather than simply tabulating it and suggest ranking the colleges from the highest to the lowest as a means to study the feasibility of using this approach as a means to develop a reliable need index.

EOPS Work Study Discussion Group Jack C. Berry, Shasta College, Chairman

1. By looking at the data collected for the individual colleges on the cost analysis format a range of $205 to $661 was shown for the average student cost in the work study area. This indicates that the proportion of EOPS funds used to meet the students estimated financial need through work study assistance varies gratly among those colleges participating in the study.

2. In order to relate the use of EOPS funds and other forms of financial aid to the students financial need estimate for each college - it is necessary to have each college's need estimate formula.

3. To relate the use of EOPS work study funds to the proportion of the students financial need met it is suggested that the changes on the "Proposed EOPS Cost Analysis Format" be considered for its addition of the "Total Financial Need Met" category.

Other

I. Activities Characteristically Considered "Other"

- Health Services
- Child Care
- Instructional to include new course, dev. curriculum, release time, media
- Consultants (Spec. Educ. Asst.)
- Learning Center Modules
- Ethnic Studies
- Reading Center (Materials - Lab)
- Orientation
- Admission, Registration Assistance
- Cultural Awareness

II. Recommendations

- % for all breakdown
- Request units completed for the report period be
  1. Fall 197X?
  2. Year fall and spring?
- Compute average GPA acquired during report period
  Fall 197X?
  Fall and spring 197X?
- Explore adaptation of on-shelf programs already available. E.G., Stanford, UC Davis, etc.
- Recommend use of global "other" - than detailed analysis of specific "other" activities.

Paul Preising
Don Richardson

Appendix C

Comparative College Costs - Total EOPS Project

College	Actual 1973-74			Current 1974-75			Requested 1975-76		
	Allocation	#	Cost per	Allocation	#	Cost per	Allocation	#	Cost per
ARC	78,138	314	248.84	71,555	250	286.22	124,032	350	354.37
Butte	31,380	75	418.40						
Columbia									
Cosumnes	55,964	97	576.94						
Laney	238,184	357	667.17						
Orange Coast	35,682	106	336.60				140,000	200	700.00
San Francisco	250,308	1,250	200.24						
San Jose	119,099	400	297.72						
Santa Barbara	45,978	300	153.26						
Santa Rosa	37,970	300	126.56						
Shasta	29,344	230	127.58						

Range 126.56 to 667.17
Average 315.33
Median 273.28

Comparative College Costs - Administrative

College	Actual - 1973-74		
	Adm. Allocation	#	Cost per
ARC	7,893	314	25.13
Butte	330	75	4.40
Columbia			
Cosumnes	955	97	9.84
Laney	10,250	357	28.71
Orange Coast			
San Francisco	11,142	1,250	8.92
San Jose			
Santa Barbara	800	300	2.66
Santa Rosa			
Shasta	8,880	230	38.60

Range 2.66 to 38.60
Average 16.89
Median 9.84

Comparative College Costs - Recruitment

Actual 1973-74

College	Allocation	#	Cost per
ARC			
Butte			
Columbia			
Cosumnes	890	10	44.50
Laney	646	100	6.46
Orange Coast			
San Francisco			
San Jose			
Santa Barbara			
Santa Rosa			
Shasta	1,000	75	13.33

Range 6.46 to 44.50
Average 21.43
Median 13.33

Comparative College Costs - Tutorial

Actual 1973-74

College	Allocation	#	Cost per	
ARC	10,357	61	169.78	
Butte	1,000	30	33.33	
Columbia				
Cosumnes	4,507	73	61.73	
Laney	21,675	357	60.71	
Orange Coast	44	1	44.00	
San Francisco	10,412	450	23.14	
San Jose	*94,099	400	235.00	*(Includes counseling, recruitment, tutorial, etc. not in totals)
Santa Barbara	13,400	225	59.56	
Santa Rosa	2,375	115	20.65	
Shasta	2,000	137	14.59	

Range 14.59 to 169.78
Average 54.16
Median 44.00

Comparative College Costs - Counseling

College	Allocation	#	Cost per
ARC	2,910	192	15.15
Butte	6,050	75	80.67
Columbia			
Cosumnes	7,982	74	54.00
Laney	21,675	357	60.71
Orange Coast			
San Francisco	47,538	650	72.14
San Jose			
Santa Barbara	2,400	300	8.00
Santa Rosa			
Shasta	300	30	10.00

Range 8.00 to 80.67
Average 42.95
Median 54.00

Comparative College Costs - Financial Aid

College	Allocation	#	Cost per
ARC	56,995	187	304.78
Butte	16,200	75	216.00
Columbia			
Cosumnes	32,050	63	225.00
Laney	152,937	307	499.00
Orange Coast	11,245	106	336.00
San Francisco	113,457	400	283.64
San Jose	25,000	52	481.00
Santa Barbara	28,078	110	255.25
Santa Rosa	35,000	225	155.55
Shasta	17,164	229	74.95

Range 74.95 to 499.00
Average 283.11
Median 269.44

HYPOTHETICAL DATA OFFERED SO THAT A SAMPLE CALCULATION MAY BE PERFORMED

To simplify the calculation let us assume that there are 10 colleges in the state, and that the total funds available for the program is equal to approximately $450,000. Further assume that the number of students to be served is 1,500 students, state-wide (that is in these 10 colleges). The average dollar amount available per student would thus be $450,000 divided by 1,500 or, $300 per student. This then is Step 1, to compute the average dollar allocation per EOPS student.

Let us identify the 10 colleges by the first 10 letters in the alphabet and assume the number of students in each college that that college proposes to serve in the following year is as follows:

College Identification	Number of EOPS students Each college proposes to serve
A	150
B	100
C	100
D	300
E	100
F	300
G	50
H	50
I	50
J	300
	1,500

Steps 2, 3(a) and 3(b) would then proceed as follows:

College Identification	SAF Scores Step 2	Average SAF Scores	Deviation from the Mean Step 3(a)	Add 1 to each Step 3 (b)	Modified Score
A	0.940	0.986	-0.046	1	0.954
B	0.890	0.986	-0.096	1	0.904
C	1.210	0.986	+0.224	1	1.224
D	1.010	0.986	+0.024	1	1.024
E	0.850	0.986	-0.136	1	0.864
F	0.810	0.986	-0.176	1	0.824
G	1.120	0.986	+0.134	1	1.134
H	0.700	0.986	-0.286	1	0.714
I	1.080	0.986	+0.094	1	1.094
J	1.250	0.986	+0.264	1	1.264

Sum of SAF scores 9.860

Number of colleges 10

$$\text{Average of SAF scores} = \frac{\text{Sum of SAF scores}}{\text{Number of colleges}} = \frac{9.860}{10} = 0.986$$

Step 4.

Multiple the number of students to be served at each college by that college's deviation from the mean socore adjusted to be a positive SAF score as in step 3(b), multiplied by the dollar amount calculated in Step 1, in order to compute the EOPS allocation for each college for the following year:

College Identification	Number of EOPS students each college proposes to serve. Step 1.	Modified Score Step 3 (b)	Average Dollar Amount Allocation per EOPS Student Step 1.	EOPS allocation for each college
A	150	0.954	$300	$ 42,930
B	100	0.904	300	27,120
C	100	1.224	300	36,720
D	300	1.024	300	92,160
E	100	0.864	300	25,920
F	300	0.824	300	74,160
G	50	1.134	300	17,010
H	50	0.714	300	10,710
I	50	1.094	300	16,410
J	300	1.264	300	113,760
				$456,900

EOPS Cost Effectiveness Project - First Workshop
ARC Faculty House

Agenda

October 12 - 10:00 a.m.

1. Introduction of participants from 13 colleges
2. Review of project objectives
3. Review of data gathering procedures

   12 - 1:30 p.m. lunch break

4. Jerry Stypes - Review of Data Processing Procedures
5. Review pilot schools cost data gathered during 1973-74

a.	Administrative	Part A	
b.	Recruitment	Part B	
c.	Tutorial	Part B	Quarter?
d.	Counseling	Part B	
e.	Other Services	Part B	Semester?
f.	Financial Aid	Part C	
g.	Work Study Aid	Part C	

If you have no other plans, you are invited to join us at

5:00 p.m. Happy Hour - 5098 Keane Drive, Carmichael
7:00 p.m. Old Sacramento - China Camp Restaurant

October 13 - 9:00 a.m.

6. Each group develop ranges of scope and cost based upon 1973-74 data. Develop tentative cost standards based upon this data.
7. Identification of component parts of college master plans for extended opportunities.
8. Cost Analysis Format - presented by Walter Brooks.
9. Discussion of responsibilities of participants prior to second workshop.

   a. Make certain that data is being collected in accordance with Chancellor's directives - (Form No. 1 and Form No. 2).
   b. Return Comparative Sheet to Director by November 1, 1974.
   c. Mark cards - Cost Effectiveness Project when sending to Chancellor's Office on December 16, 1974 and March 1, 1975 so we can ask for special printouts for spring workshop.

10. Set date of next workshop - Saturday, March 15, 1975.

October 12, 1974

2nd EOPS Cost Effectiveness Workshop
March 15, 1975

Agenda

1. **Report - Current Status of Form No. 1 and No. 2 Data** — **Ralph Matthews**
   Requested Cost Effectiveness Formula - without data run

2. **Comparative Summaries**
   Discussion

3. **Review Committee Reports**
   Discussion

4. **Extension of Cost Analysis Format**
   (Based upon Walter Brooks' suggestion)
   Discussion

5. **Recommendations for project completion**
   Appointment of Formula Sub-committee

AMERICAN RIVER COLLEGE

April 21, 1975

To: All EOPS Cost Effectiveness Project Participants

From: Lorine Aughinbaugh, Project Director

The final workshop will be held on Saturday, May 10, as scheduled. We will meet in the Faculty House at 9:30 a.m. and plan to be finished by 3:00 p.m. Please schedule your flight times accordingly.

The sub-committee has met on three weekends since the last general workshop and plans to meet again on April 26 for final review and edit of the report we plan to present to you May 10.

As the recommendations from the Cost Effectiveness Committee to the Chancellor's staff could affect future allocations to your college, I feel certain that each of you will make every effort to attend the May 10 meeting.

Agenda - May 10, 1975

Review of Products II and III as prepared by the Formula Sub-committee.

Note: Products II and III were approved unanimously by the workshop participants on May 10.

List of Sub-committee Meetings

Sacramento	March 22-23, 1975
Solano College	April 12, 1975
Solano College	April 19, 1975
Host Airport - Sacramento	April 26-27, 1975
Host Airpost - Sacramento	June 20-21, 1975

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